

REMARKS

Claim 1-17 are pending in the present application with claims 1-9 withdrawn in response to a restriction requirement. With entry of this Amendment, Applicants amend claims 10 and 15, cancel claims 12 and 17 and add new claims 18-21. Reexamination and reconsideration are respectfully requested.

Claims 10-12 and 14-16 were rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Franca et al. (US 6178973). Claim 13 was rejected under § 103(a) as being unpatentable over Franca in view of Shindo et al. (US 5845660) or Tanaka et al. (US 5288333). The Examiner rejected claim 17 under § 103(a) as being unpatentable over Franca in view of Verhaverbeke et al. (US 6491763). The rejections are respectfully traversed.

The present invention is directed generally to controlling the amount of nitrogen in a processing apparatus. In one embodiment, a central controller controls the feed of nitrogen gas. When it is necessary to remove a resist and etch a metal on a substrate to be processed, the controller controls the feed of nitrogen gas such that the processing gas, the solvent vapor and the nitrogen gas are fed into the vessel. When it is necessary to only remove a resist and it is not necessary to etch a metal on the substrate, the controller controls the feed of nitrogen gas such that the processing gas and the solvent vapor are fed into the processing vessel.

Franca is directed to a method and apparatus for treating a substrate surface by oxidizing, cleaning and/or planarizing the substrate surface through the use of optical energy. As disclosed in Col. 5, lines 11-61, two streams – the first stream with ozone and the second stream possibly including noble gases, N₂, etc. – can be delivered to the substrate surface. However, Franca fails to disclose or suggest a “central controller controlling the flow rate of nitrogen gas flowing through said nitrogen gas feed pipe so as to feed nitrogen gas, the processing gas and the solvent vapor to remove a resist on the substrate-to-be-processed and etch a metal on the substrate-to-be-processed, and controlling the flow rate of nitrogen gas flowing through said nitrogen gas feed pipe so as to feed the processing gas and the solvent vapor to remove a resist on the substrate-to-be-processed but not etch a metal on the substrate-to-be-processed” as recited in claim 10. Accordingly, Applicants

respectfully submit that claim 10 is not anticipated by Franca. Independent claim 15 has been similarly amended, and Applicants respectfully submit that claim 15 is likewise not anticipated by Franca.

Claims 11, 13, 14 and 16 and new claims 18-21 depend from either claim 10 or claim 15. These claims are not anticipated for the reasons set forth above.

The Examiner rejected claim 13 under § 103 by citing Shindo and Tanaka and claim 17 (now canceled) by citing Verhaverbeke. None of these references makes up for the deficiencies of Franca. Verhaverbeke discloses at Col. 7, lines 23-29 a nitrogen gas source to displace fluid from the process chamber, facilitate delivery of the heated solvent vapor and/or maintain pressure within the process chamber. However, Franca fails to disclose or suggest a "central controller controlling the flow rate of nitrogen gas flowing through said nitrogen gas feed pipe so as to feed nitrogen gas, the processing gas and the solvent vapor to remove a resist on the substrate-to-be-processed and etch a metal on the substrate-to-be-processed, and controlling the flow rate of nitrogen gas flowing through said nitrogen gas feed pipe so as to feed the processing gas and the solvent vapor to remove a resist on the substrate-to-be-processed but not etch a metal on the substrate-to-be-processed." Accordingly, claim 13 is not obvious in view of the cited references.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If, for any reason, the Examiner finds the application other than in condition for allowance, Applicants request that the Examiner contact the undersigned attorney at the Los Angeles telephone number (213) 892-5630 to discuss any steps necessary to place the application in condition for allowance.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of

such petitions and/or other fees due in connection with the filing of this document to **Deposit**
Account No. 03-1952 referencing docket no. 199372003500.

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Respectfully submitted,

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